



## STEREO POWER AMPLIFIERS **NEW**

A range of entry level stereo power amplifiers which are ideal for domestic use. The amplifiers feature various input and output connections to make them suitable for most applications.

- Volume control for each channel
- Fan cooled
- Attractive blue LED output level indicators
- 2U 19" Rack mountable
- Toroidal transformer

Power Supply .....230Vac, 50Hz  
 Frequency Response .....20Hz-20kHz  
 THD.....<0.5%  
 S/N Ratio.....>98dB  
 Load Impedance.....4Ω  
 Input Sensitivity.....775mV, 10kΩ



Stock Code	172.012	172.014	172.015
Model	<b>PRO480</b>	<b>PRO600</b>	<b>PRO1000</b>
Power max @ 4 ohms	2 x 240W	2 x 300W	2 x 500W
Power rms @ 4 ohms	2 x 120W	2 x 150W	2 x 250W
Input connectors	RCA phono/6.3mm jack	RCA phono/6.3mm jack	RCA phono/6.3mm jack
Output connectors	NL4/XLR/Binding post	NL4/XLR/Binding post	NL4/XLR/Binding post
Dimensions	482 x 300 x 88mm (2U)	482 x 300 x 88mm (2U)	482 x 300 x 88mm (2U)
Weight	7.1kg	7.1kg	8.5kg



## STEREO POWER AMPLIFIERS

A range of high output, high quality stereo power amplifiers designed and built to exacting standards by a leading manufacturer. Each model features a proven bi-polar output stage with SMD technology, a generously rated power supply with toroidal transformer, high quality double-sided PCB boards and a highly efficient forced air-cooling system.

- Total harmonic distortion less than 0.05% (1kHz at rated power)
- Power on, clip L&R and protection LED indicators
- 6.3mm (JACK) unbalanced inputs and 6.3mm (JACK) speaker outputs for models TEC6300
- Combination XLR/JACK (balanced/unbalanced) inputs and 4-pole Speakon outputs for TEC6500 & TEC6950 models



Power supply .....230Vac, 50Hz  
 Frequency response.....20Hz - 20kHz  
 THD.....<0.05%  
 Input sensitivity .....775mV, 10kΩ  
 Load impedance.....4Ω  
 S/N ratio .....>90dB

Stock Code	171.102	171.104	171.106
Model	<b>TEC6300</b>	<b>TEC6500</b>	<b>TEC6950</b>
Power max	2 x 300W	2 x 500W	2 x 1000W
Power rms @ 4 ohms	2 x 150W	2 x 250W	2 x 500W
Input connectors	6.3mm jack/phono	XLR/jack/phono	XLR/jack/phono
Output connectors	6.3mm jack	Speakon®	Speakon®
Dimensions (without handles)	482 x 300 x 88mm (2U)	482 x 300 x 88mm (2U)	482 x 300 x 88mm (2U)
Weight	12.5kg	13kg	18kg

# CITRONIC

## ULTIMA

HIGH  
POWER



NEW

### ULTIMA PRO HIGH POWER AMPLIFIERS

We have taken our tried and tested amplifier stage and made it bigger and more powerful - once again setting the standards in build quality and reliability - making this range a formidable force in the market place for price and performance. Robust construction suitable for heavy duty usage and racking.



- High power output
- High damping factor and slew-rate
- Stereo, parallel and bridge mode
- 4 fans for efficient cooling
- "Low cut" filter controls 5, 25, 50Hz
- Perfect protection against overloading and high temperatures
- Speakon® NL4 output connector and binding posts
- Automatic clip limiting
- Balanced inputs via XLR or 6.3mm jack
- 2U Rack mounting

	171.209	171.212
Model	<b>PRO-2000</b>	<b>PRO-3200</b>
Power supply	230Vac, 50Hz	230Vac, 50Hz
Power rms @ 4 ohms	2 x 1000W	2 x 1600W
Power rms @ 8 ohms	2 x 660W	2 x 1000W
Power rms @ 8 ohms bridged	2000W	3200W
Frequency response	20Hz - 20kHz	20Hz - 20kHz
Input impedance (unbalanced/balanced)	10kΩ / 20kΩ	10kΩ / 20kΩ
Input sensitivity	1V	1V
THD @ 4 ohms/1kHz	<0.05% @ 200W	<0.05% @ 320W
S/N ratio	>108dB	>108dB
Crosstalk	>75dB	>75dB
Damping factor	>800 @ 8Ω / 100Hz	>800 @ 8Ω / 100Hz
Slew rate	>80V/μs	>100V/μs
Case Dimensions	482 x 375 x 88mm (2U)	482 x 452 x 88mm (2U)
Weight	18kg	30kg

### SPEAKON® CONNECTORS

All Citronic amplifiers are fitted with Speakon® sockets.



These allow the plug to be locked in to the socket to provide a fully-insulated connection, eliminating the electrical shock risks associated with high power audio amplifiers.





**NEW**

## ULTIMA PRO AMPLIFIERS

Citronic famous for set and forget reliability in amplification has produced its best range to date. The PRO range sets the standard in build quality, reliability and features, making this new range a formidable force in the market place for price and performance.



- Outstanding sound quality
- Innovative heat sink structure and temperature controlled fan ensure long, reliable operation
- Stereo and bridge modes
- Clip limiter to reduce distortion
- LF Filter switch 5Hz, 25Hz, 50Hz
- Signal, overload and bridge LED indicators for each channel
- Balanced (XLR) and unbalanced (6.3mm) inputs
- Speakon (NL4) and binding post outputs
- Robust construction and 19" rack mountable

Stock Code	171.201	171.204	171.207
Model	<b>PRO-600</b>	<b>PRO-1000</b>	<b>PRO-1600</b>
Power supply	230Vac, 50Hz	230Vac, 50Hz	230Vac, 50Hz
Power rms @ 4 ohms	2 x 300W	2 x 500W	2 x 840W
Power rms @ 8 ohms	2 x 200W	2 x 330W	2 x 500W
Power rms @ 8 ohms bridged	600W	1000W	1500W
Frequency response	20Hz - 20kHz	20Hz - 20kHz	20Hz - 20kHz
Input impedance (unbalanced/balanced)	10kΩ / 20kΩ	10kΩ / 20kΩ	10k / 20k
Input sensitivity	1V	1V	1V
THD	<0.05%	<0.05%	<0.05%
S/N ratio	>108dB (A-weight)	>108dB (A-weight)	>108dB (A-weight)
Crosstalk	>75dB	>75dB	>75dB
Damping factor	>800	>800	>350
Slew rate	>50V/μS	>60V/μS	>18V/μS
Dimensions	483 x 310 x 88mm (2U)	483 x 375 x 88mm (2U)	483 x 452 x 88mm (2U)
Weight	11kg	15kg	25kg



## UNIVERSAL KARAOKE STEREO AMPLIFIER

A versatile stereo amplifier has four selectable inputs, DVD, CD, Tape, and DVD Karaoke. The amplifier also has two microphone inputs with individual volume controls and echo control.

- A high output power of 2 x 50W max
- Features 2-band tone controls and a MASTER volume control
- Microphone inputs are fitted with separate volume controls and echo effect
- 4 stereo LINE inputs via RCA phono sockets
- Spring clip terminal speaker connections
- 2 microphone inputs via 6.3mm gold plated jack sockets
- With fixed mains lead

Power supply .....230Vac, 50Hz  
Output power.....2 x 50W max.  
Impedance.....8Ω  
Input sensitivity:Line .....500mV  
Input sensitivity:Mic (unbalanced).....2mV  
Dimensions .....95 x 250 x 240mm  
Weight.....1.42kg

Stock Code	Packed
<b>103.100</b>	Gift box



## 40W KARAOKE STEREO AMPLIFIER

This low profile Karaoke amplifier comes in a sleek silver aluminium finish.

- Dual microphone inputs with separate volume controls and echo control for Karaoke
- Balance, bass, treble and master volume controls
- 2 channel / 5 channel mode selector switch
- VCD, CD, Tape and AC-3/DTS inputs
- Binding posts for main speakers and spring terminals for surround speakers
- Inputs via RCA phono

Power supply .....230Vac, 50Hz (200W)  
Power output:Front .....25W  
Power output:Satellites.....12W  
Power output:Centre.....12W  
Frequency response.....20Hz - 20kHz (±2dB)  
Harmonic distortion.....<1%  
S/N ratio .....71 dB  
Input sensitivity:Line .....250mV/47kΩ  
Input sensitivity:Mic.....20mV/600Ω  
Dimensions .....430 x 65 x 330mm  
Weight.....4.4kg

Stock Code	Packed
<b>103.127</b>	Gift box



## 34W KARAOKE STEREO AMPLIFIER

A stylish, low profile AV/Karaoke stereo amplifier in a black and silver finish offering a range of features to enhance your home entertainment.

- Dual microphone inputs with individual volume controls and echo control
- Master volume, bass, treble and balance controls
- AC-3/DTS, VCD, CD and Tape inputs
- Speaker connection via spring terminals
- Inputs via RCA phono

Power supply .....230Vac, 50Hz (300W)  
Output power:Front.....18W  
Output power:Satellites .....8W  
Output power:Centre .....8W  
Frequency response.....20Hz - 20kHz (±2dB)  
Harmonic distortion.....<1%  
S/N ratio .....76dB  
Input sensitivity:Line .....250mV/47kΩ  
Input sensitivity:Mic.....20mV/600Ω  
Dimensions .....430 x 57 x 300mm  
Weight.....3.4kg

Stock Code	Packed
<b>103.124</b>	Gift box



## 5.1 SURROUND SOUND AV/KARAOKE AMPLIFIER

This 5.1 surround amplifier with DSP comes packed with features to enable it to be used for both AV and karaoke. It comes in a black or silver finish and features a bright digital VU display.

- Adjustable delay, echo and tone controls for karaoke
- Supplied with remote control
- 3 x stereo and 1 x 5.1 line inputs
- 2 band tone controls
- 2 large VU meters
- Binding post for front and surround speaker connection
- Line output for subwoofer

Power supply ..... 230Vac, 50Hz  
 Output power..... 2 x 180W / 2 x 140W & 3 x 40W (max)  
 Impedance..... 8Ω  
 Signal to noise ratio ..... > 70dB  
 Dimensions ..... 190 x 430 x 378mm  
 Weight..... 8.6kg

Stock Code	Colour	Packed
<b>103.153</b>	Silver	Gift box
<b>103.156</b>	Black	Gift box

## McGREGOR AMPLIFIERS

For over 30 years McGregor has been manufacturing public address equipment that competes acoustically with the top brands, but at an affordable price.

As one of the few remaining British manufacturers, McGregor Amplification continues to develop it's amplification and speaker products to match the demands of the public address, entertainment and install market.

McGregor innovations enabled them to be amongst the first to include amplifier features such as MOSFET output stages, graphic equalisers, active clip limiters, noise gates, stage rumble filters, PPI LED indicators and active crossovers - all at competitive prices and with compact user-friendly layouts.



## McGREGOR SS SERIES STEREO POWER AMPLIFIERS

The SS series are designed to operate under heavy load conditions where a portable heavy duty amplifier solution is required. Ideal for mobile use or installations where rack mounting of equipment is not an option.

- Class AB MOSFET output stage
- Active clip limiter (internal On/Off)
- Fan cooled with proportional speed fan
- Jack input & link (6.35mm unbalanced)
- Speakon® speaker connections
- Carpet covered sleeve with metal corners and carrying handle

**Amplifier:**  
 Power supply ..... 230Vac, 50/60Hz  
 Frequency response..... 20Hz - 25kHz (±0.5dB)  
 THD @ rated power ..... <0.02% @ 1kHz  
 Signal to noise ratio ..... >100dB  
 Channel separation ..... >80dB  
 Clip limiter ..... Active @ clip, any load  
 Input sensitivity ..... 775mV/0dBu  
 Input impedance..... 10kΩ unbalanced  
 Damping factor ..... >400  
 Slew rate ..... 40V/μs  
 DC protection..... ±32V

**Mixer:**  
 Mic inputs (balanced/unbalanced) ..... 3.3kΩ, 5mV  
 Line inputs (unbalanced) ..... >22kΩ, 200mV  
 Line output (unbalanced) ..... >10kΩ, 775mV (0dB)  
 Headroom ..... ±22dB, PPIs active @ +19dB  
 Low..... ±15dB @ 50Hz, shelved  
 Mid ..... ±8dB @ 68Hz (if fitted)  
 High ..... ±15dB @ 12kHz, shelved

Stock Code	Model	Output	Dimensions	Weight
171.545	<b>SS200</b>	2 x 100W @ 4Ω	530 x 304 x 146mm	11kg
171.546	<b>SS500</b>	2 x 250W @ 4Ω	530 x 304 x 146mm	12kg
171.547	<b>SS1000</b>	2 x 500W @ 4Ω	530 x 304 x 146mm	13kg
171.548	<b>SS1300</b>	2 x 650W @ 4Ω	530 x 304 x 146mm	14kg





## McGREGOR BG SERIES MOSFET MIXER AMPLIFIERS

Dual channel mixer amplifiers with voice override. Designed as a cost effective, high performance entry level unit with many features only found on more expensive equipment.

- Low Z balanced XLR and unbalanced 6.35mm microphone inputs
- Microphone channel has volume, bass, treble and priority override with LED status indicator
- Music channel has 2 x phono aux/line inputs with volume 1, volume 2, bass & treble
- 6.35mm jacks for speaker and slave out
- Active clip limiter
- Available in 100W and 250W versions
- Master volume control and a line output jack

Stock Code	Model	Output	Dimensions	Weight
171.508	<b>BG100</b>	1 x 100W @ 4Ω	435 x 230 x 130mm	5.2kg
171.509	<b>BG250</b>	1 x 250W @ 4Ω	435 x 230 x 130mm	7.0kg

FOR SPECIFICATIONS SEE PAGE 237



## McGREGOR PA SERIES 4-CHANNEL MOSFET MIXER AMPLIFIERS WITH DIGITAL DELAY

These versatile 4-channel mosfet mixer amplifiers are specifically designed to meet the requirements for entry level PA applications. Their compact size, high performance and reliability make these amplifiers ideal for installation or mobile use.

- CH 1-4 have Low-Z microphone inputs which are balanced XLR or unbalanced 6.35mm jack
- Each channel has volume, bass, treble, PPI LED
- Aux and digital effects switching on all channels
- Master volume control with active clip limiter and LED indicator
- Aux send/return and line out 6.35mm jacks
- Speaker and slave out 6.35mm jacks
- The digital delay module has level, repeat, delay and footswitch
- Available in 100W and 250W versions

Stock Code	Model	Output	Dimensions	Weight
171.511	<b>PA100</b>	1 x 100W @ 4Ω	435 x 230 x 130mm	5.2kg
171.512	<b>PA250</b>	1 x 250W @ 4Ω	435 x 230 x 130mm	7.0kg

FOR SPECIFICATIONS SEE PAGE 237



## McGREGOR V12 SERIES MOSFET MIXER AMPLIFIERS WITH DIGITAL EFFECTS PROCESSOR

The V12 series of amplifiers provide upto 1.3kW of power in only 2U of rack space via 4 mic channels and 4 stereo auxillary line level inputs. These amplifiers are user friendly and feature a high quality, low noise, variable speed digital effects processor.

- Channels 1-4 have balanced XLR and unbalanced 6.35mm jack inputs with Volume, Bass, Middle, Treble PPI LED and rotary controls for AUX and Digital effects send
- AUX channels 5 & 6 provide four stereo line inputs with separate level controls. Each channel has Bass, Middle and Treble
- Overall master volume for channels A&B and stereo/mono push switch
- 12 Digital effects selected by up/down keys with dual colour LED program indicators
- Overall mix level and variable speed delay on all effects (equivalent to 120 effects)
- Effects include: spring line reverb, hall reverb, rev and delay, delay, one shot delay, chorus and flanger with or without reverb
- Effects mute is footswitch controlled with LED status indicator
- AUX inputs via RCA phono sockets (rear panel)
- Send and return via 6.35mm jacks
- 2 Speakon sockets for loudspeaker connection
- Active clip limiter is internally configurable
- Fan cooled with thermal trip

Stock Code	Model	Output	Dimensions	Weight
171.536	<b>V12-500</b>	2 x 250W @ 4Ω	483 x 290 x 89mm (2U)	12kg
171.537	<b>V12-1000</b>	2 x 500W @ 4Ω	483 x 290 x 89mm (2U)	13kg
171.538	<b>V12-1300</b>	2 x 650W @ 4Ω	483 x 290 x 89mm (2U)	14kg

**FOR SPECIFICATIONS SEE PAGE 237**



## McGREGOR DA2U SERIES STEREO MOSFET MIXER AMPLIFIERS

This series offers a stereo solution for a single zone or can be used in mono mode for two zones requiring upto 2 Mics and 4 stereo line inputs, making these amplifiers the ideal choice for high level background music and paging.

- Features include automatic voice override, remote volume control and a fire alarm interface on channels A and B
- LED status of remote volume control setting and fire alarm activation for both zones
- 2 Mic inputs, balanced XLR and unbalanced 6.35mm jack with Vol 1, Vol 2, bass, treble, PPI indicator and Zone A & B Mic mute switches
- 4 Aux/line level volume controls with separate bass and treble
- Internally adjustable Priority override level (VOX) with VOX active LED indicators. Operates with both mics
- Overall Master volume controls
- Dual 5-segment LED VU power output displays
- Active clip limiter (internally configurable On/Off)
- AUX inputs via RCA phono sockets, with line in and out via 6.35mm jacks
- Speakon loudspeaker connectors
- Proportional speed fan control

Stock Code	Model	Output	Dimensions	Weight
171.521	<b>DA2U-1000</b>	2 x 500W @ 4Ω	483 x 290 x 89mm (2U)	13kg
171.524	<b>DA2U-1300</b>	2 x 650W @ 4Ω	483 x 290 x 89mm (2U)	14kg

**FOR SPECIFICATIONS SEE PAGE 237**







### McGREGOR KA SERIES MOSFET MIXER AMPLIFIERS

These compact 1U amplifiers have been designed for small bars that require up to three mics and three stereo line inputs with voice override options. Designed to cover all audio visual and karaoke requirements in a venue where space is an issue. When connected to a DVD/CD/CDG/MP3 player, satellite and TV the potential of this amplifier is impressive.

- Built-in digital effects processor with 4 variable (total 40) effects, level repeat and footswitch control
- Three mic inputs and three stereo line inputs
- Balanced low impedance mic inputs on XLR or 6.3mm jacks
- MIC 1 input also on the front panel via combination XLR & jack socket
- Priority override level (VOX) with vox active LED indicator - works with any mic to reduce the music level automatically when selected

- Three line level channels with volume controls and separate bass and treble
- Overall master volume control
- Twin 5 segment VU output power displays
- Active clip limiter (internally configurable On/Off)
- Speakon® connections for speakers
- Fan cooled (variable speed)

Stock Code	Model	Output	Dimensions	Weight
171.527	KA200	2 x 100W @ 4Ω	483 x 300 x 44mm (1U)	4.8kg
171.530	KA500	2 x 250W @ 4Ω	483 x 300 x 44mm (1U)	5.4kg

FOR SPECIFICATIONS SEE BELOW



### McGREGOR DAU SERIES MOSFET MIXER AMPLIFIERS

These compact 1U amplifiers are a stereo solution for a single zone or a mono solution for two zones requiring both mic and line inputs.

- 2 x Low impedance mic inputs - balanced or unbalanced
- MIC 1 accessible on the front panel via combination XLR & jack socket
- Internally adjustable priority override level (VOX) with vox active LED indicator - works with either mic to reduce the music level automatically when selected
- Four line level channels with volume controls and separate bass and treble
- Remote volume control interface with LED status indicator
- Fire alarm interface with LED status indicator
- Overall master volume controls
- Twin 5 segment LED VU power output displays
- Active clip limiter (internally configurable On/Off)
- Speakon® connections for speakers
- Fan cooled (variable speed)

Stock Code	Model	Output	Dimensions	Weight
171.515	DAU/200	2 x 100W @ 4Ω	483 x 300 x 44mm (1U)	4.8kg
171.518	DAU/500	2 x 250W @ 4Ω	483 x 300 x 44mm (1U)	5.4kg

#### Power amp specifications all models:

Power supply .....230Vac, 50/60Hz  
Frequency response.....20Hz - 25kHz (±0.5dB)  
THD @ rated power.....<0.02% @ 1kHz  
Signal to noise ratio.....>100dB  
Channel separation.....>60dB

DC protection.....±32V  
Clip limiter.....Active @ clip, any load  
Input sensitivity.....775mV/0dBu  
Input impedance.....10kΩ unbalanced (SA series)  
Damping factor.....>400  
Slew rate.....40V/μS

#### Mixer stage specifications all models:

Mic inputs .....Balanced or unbalanced 3.3kΩ, 5mV  
Line inputs.....Unbalanced, >22kΩ, 200mV  
Line output.....Unbalanced, >10kΩ, 775mV (0dB)  
Headroom.....+22dB, PPIs active @ +19dB  
Bass.....±15dB @ 50Hz, shelved  
Treble.....±15dB @ 12kHz, shelved



## McGREGOR BGR SERIES MOSFET MIXER AMPLIFIERS

Compact 1U rack mounting amplifiers designed for applications that require both mic and line level inputs with voice override facilities. Ideal as a background music amplifier and equally suitable for aerobic systems.

- 2 x low impedance mic inputs (balanced or unbalanced) on rear mounted jack inputs
- MIC 1 also accessible on the front panel via combination XLR & jack socket
- Externally adjustable priority override level (VOX) with vox active LED indicator - works with either mic to reduce the music level automatically when selected
- Three line level channels with volume control and separate bass and treble
- Overall master volume control
- 12 segment LED VU power output display with peak hold
- Active clip limiter (internally configurable On/Off)
- 6.3mm jack connections for speakers
- Fan cooled

Stock Code	Model	Output	Dimensions	Weight
171.503	<b>BGR100</b>	1 x 100W @ 4Ω	483 x 300 x 44mm (1U)	4.2kg
171.506	<b>BGR250</b>	1 x 250W @ 4Ω	483 x 300 x 44mm (1U)	4.8kg

FOR SPECIFICATIONS SEE PAGE 240

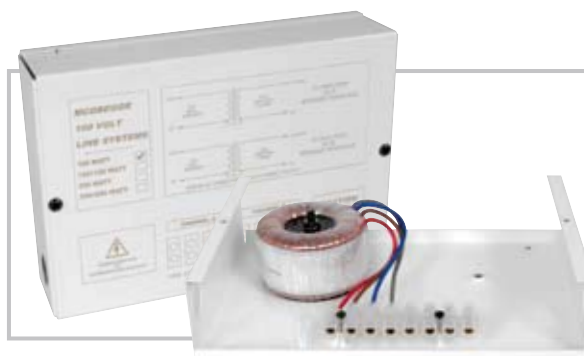


## McGREGOR SA SERIES MOSFET SLAVE AMPLIFIERS

Compact range of dual channel 1U power amplifiers designed to complement the McGregor range of 1U mixer amplifiers. They are ideal for boosting power levels, driving additional zones, or simply extending bass response with additional bass bins.

Stock Code	Model	Output	Dimensions	Weight
171.539	<b>SA200</b>	2 x 100W @ 4Ω	483 x 300 x 44mm (1U)	4.8kg
171.542	<b>SA500</b>	2 x 250W @ 4Ω	483 x 300 x 44mm (1U)	5.4kg

FOR SPECIFICATIONS SEE PAGE 240



## McGREGOR 100V LINE TRANSFORMERS

These permit audio amplifiers with 100W or 250W outputs to generate 100V line level for low loss sound distribution and easier impedance matching.

- Available in 100W and 250W, mono and stereo versions

Stock Code	Version	Packed
<b>171.617</b>	1 x 100W	Bag
<b>171.620</b>	1 x 250W	Bag
<b>171.623</b>	2 x 100W	Bag
<b>171.626</b>	2 x 250W	Bag



An exclusive range of compact amplifiers offering a range of comprehensive features, excellent performance and reliability for use in a wide variety of small to medium installations. Compact size - comprehensive features - competitive price.

All models are constructed in a strong metal cabinet with black facia, IEC fused mains inlet and screw terminal blocks for connection of

loudspeakers and external DC power. Ideal for free standing on desk/table tops or for auto/marine use.



### 3 CHANNEL 25W RMS MIXER AMPLIFIER

A compact P.A. amplifier offering a range of comprehensive features, excellent performance and reliability for use in a wide variety of small to medium installations. The unit offers 25W RMS output power with unbalanced mic input and switched VOX priority on channel 1, selectable Mic/Aux on channel 2 and line input on channel 3.

- CH 1 unbalanced Mic input
- VOX priority on CH 1
- CH 2 Selectable Mic (unbalanced) /Aux input
- CH 3 LINE input (RCA phono L&R)
- 8Ω and 100V line outputs
- Master, bass and treble controls
- Mains/battery operation

### 3 CHANNEL 50W RMS MIXER AMPLIFIER

A compact P.A. amplifier offering a range of comprehensive features, excellent performance and reliability for use in a wide variety of small to medium installations. The unit offers an output of 50W RMS featuring a balanced microphone input with switched VOX priority and mic/telephone selection on CH1, aux/mic input option on CH2.

- CH1 balanced microphone input (XLR/6.3mm)
- VOX priority and tel/mic input selection on CH1
- CH2 selectable mic(unbalanced)/aux input
- CH3 Line input(RCA phono L&R)
- Fog, siren or alert warning facility
- 7 LED bargraph
- Master, bass and treble controls
- Mains/battery operation

### COMPACT 50W RMS SLAVE AMPLIFIER

A compact slave (booster) amplifier giving an output of 50W RMS to complement our compact mixer amplifiers in styling and size or for use with other models in the Adastra range.

- Master volume control
- 8Ω and 100V line outputs
- RCA phono input and output
- Mains/battery operation

Stock Code	952.931	952.934	952.938
Version	3 Channel	3 Channel	Slave
Output	1% THD 24W	45W	45W
	100% THD 32W	60W	60W
Frequency response	100Hz - 10kHz (±3dB)	100Hz - 10kHz (±3dB)	100Hz - 10kHz (±3dB)
SNR	Mic1, Mic2 -65dB	-65dB	-
	Tel, Aux, Line -75dB	-75dB	-75dB
Input sensitivity	Mic1, Mic2 2.8mV	2.8mV	-
	Tel -	500mV	-
	Aux 300mV	300mV	-
	Line 300mV	300mV	300mV
Input impedance	Mic1, Tel 2kΩ	3kΩ	-
	Mic2 3kΩ	3kΩ	-
	Aux, Line 10kΩ	10kΩ	10kΩ
Outputs	Speaker 8Ω and 100V	8Ω and 100V	8Ω and 100V
	Line 1V @ 600Ω	1V @ 600Ω	1V @ 600Ω
Power	Mains 230Vac, 50Hz (85VA)	230Vac, 50Hz (135VA)	230Vac, 50Hz (135VA)
	Battery 12Vdc, 5A	12Vdc, 8A	12Vdc, 8A
Dimensions	270 x 218 x 85.5mm	270 x 218 x 85.5mm	270 x 218 x 85.5mm
Weight	3.9kg	4.5kg	4.5kg





## 6 CHANNEL 120W RMS MIXER AMP WITH TUNER & CD

A unique voice and music distribution system, housed in one unit it offers 120Wrms output power, a programmable AM/FM tuner and a single CD player. This versatile unit is easy to install, with a wide range of features it is suitable for many PA and background music applications. A useful feature incorporated in this unit is the two zone facility on 100V line, selected by push buttons on the front panel, this allows the output signal to be assigned to a designated area.

- 4 balanced microphone inputs all with switchable phantom power
- Mic 1 with VOX priority
- Line input and output
- Zone 1 and 2 selection

- Music on hold facility
- Telephone interface
- Integral CD and tuner
- Built in chime function
- Master bass and treble

- Master volume control
- LED VU meter
- 19" rack mountable (Optional rack mount kit 952.413 )
- 230Vac mains and 24Vdc operation

Power:Mains .....230Vac, 50Hz  
Power:Battery .....24Vdc (8A)  
Weight..... 10kg  
Output power:Max. .... 180W  
Dimensions..... 430 x 88 x 300mm  
Frequency response:Mic..... 60Hz - 15kHz (±3dB)

Frequency response:Line..... 60Hz - 15kHz (±3dB)  
Frequency response:Tel ..... 100Hz - 15kHz (±3dB)  
Input sensitivity:Line .....200mV, 47kΩ  
Input sensitivity:Mic..... 1mV, 250Ω  
THD @ rated ..... <1% @ 1kHz  
Input sensitivity:Tel.....100mV, 600Ω

Tone control:Bass..... ±10dB @ 100Hz  
Tone control:treble..... ±10dB @ 10kHz  
Outputs:Speaker ..... 8Ω & 25, 70, 100V  
Output:Line..... 1V @ 600Ω

Stock Code	Packed
<b>952.901</b>	Box



## ADASTRA CD/TUNER /MIXER /AMPLIFIER

An all-in-one solution for your voice and distribution featuring a 120W amplifier, a single CD player, which can be programmed or set to play in a random order and has an LCD display showing the number of the track currently selected, and a digital FM tuner that the user can preset upto 6 stations and also has an LCD display showing the band and frequency of the tuner and stored channel. On the rear panel there are 4 XLR sockets for Mic/Line inputs with volume controls on the front of the unit. Also featured on the front panel are tone controls for the bass and treble frequencies, input select buttons, master volume and a 5 bar LED monitor. The unit is housed in a robust steel chassis with rack ears to allow the unit to be placed in a 19" rack.

- Individual channel, auxillary, master volume controls
- Bass and treble controls
- 4 balanced (XLR) inputs selectable for microphone or line source

- Selectable VOX and Phantom power (+18V)
- Auxiliary IN, line OUT, amp IN and Preamp OUT via RCA phono
- LCD readout for function status

- Screw terminals for speaker output (4Ω, 8Ω, 70V and 100V line)
- 19" rack mountable
- 240Vac mains or 24Vdc operation

Power supply .....240Vac, 50Hz (350W)  
Power:Battery .....24Vdc  
Frequency response.....50Hz - 15kHz  
Weight..... 11.9kg  
Dimensions..... 430 x 340 x 100mm  
Output power: RMS < 2% T.H.D..... 120W

THD @ rated ..... >1% @ 1kHz  
Signal to noise ratio ..... Mic 1-4 60dB, Aux 80dB  
Tone control:Bass..... ±10dB @ 100Hz  
Input impedance:Mic .....Mic 1-4 Balanced 600Ω  
Tone control:treble..... ±10dB @ 10kHz  
Input impedance:Aux/Line.....10kΩ

Input sensitivity:Mic (balanced)..... 2mV  
Outputs:Speaker .....4Ω, 8Ω, 70V, 100V  
Input sensitivity:Line (balanced) .....250mV  
Input sensitivity:Aux (unbalanced).....250mV

Stock Code	Packed
<b>952.916</b>	Box



The 900 series of mixer amplification offers a comprehensive range of features with excellent performance and reliability. With an extended range of complementary audio source and accessories to complement the range, there is an Adastra 900 series solution to suit almost every installation.

The four mixer amplifiers in the range each include at least one electronic balanced microphone input with switchable VOX priority - the top of the range version 952.996 has six channels switchable between line and balanced mic as well as switchable priority on channels 1 and 2. All units have strong metal cabinets in 2U size with separate rack ears for 19" rack mounting. As an added feature the chassis is also prepared with screw holes to enable the

rack ears to be used as table/shelf security mounting brackets. All amplifiers are fully protected for short circuit and overload with fuse protection for the DC power supply and are fitted with clear and precise front facias. The amplifiers also include LED indication for peak power and signal to give a visual reading of the amplifiers performance and are fitted with IEC mains sockets for ease of installation. Supplied with IEC mains lead.

- True rms power ratings
- Balanced mic inputs
- XLR microphone connection with additional 3 screw terminal for hard wiring
- Vox priority
- Fully protected
- Phantom power



Stock Code	952.966	952.969	952.972	952.996
Version	3 Channel	4 Channel	4 Channel	6 Channel
Output	Max 40W	70W	160W	160W
RMS <2% THD	30W	60W	120W	120W
DC power	30W	42W	92W	92W
Frequency response	100Hz - 12kHz (±3dB)	100Hz - 12kHz (±3dB)	100Hz - 12kHz (±3dB)	100Hz - 10kHz (±3dB)
Signal to noise ratio	All volume controls ccw: 92dB, Master max and all input vol. Min: 75dB, Aux and line: 75dB			
Inputs	Mic 1.5mV	1.5mV	1.5mV	1.5mV
Line	300mV	300mV	300mV	300mV
Input sensitivity	Mic1 1.5mV (-56.4dBV), balanced	1.5mV (-56.4dBV), balanced	1.5mV (-56.4dBV), balanced	1.5mV (-56.4dBV), balanced
Mic2	1.5mV (-56.4dBV), unbalanced	1.5mV (-56.4dBV), unbalanced	1.5mV (-56.4dBV), unbalanced	2.6mV (-31.7dBV), unbalanced
Mic3	-	1.5mV (-56.4dBV), unbalanced	1.5mV (-56.4dBV), unbalanced	-
Aux	-	300mV (-10.4dB), unbalanced	300mV (-10.4dB), unbalanced	300mV (-10.4dB), unbalanced
Line	300mV (-10.4dB), unbalanced	300mV (-10.4dB), unbalanced	300mV (-10.4dB), unbalanced	300mV (-10.4dB), unbalanced
Input impedance	Mic 1.8kΩ	1.8kΩ	1.8kΩ	1.8kΩ
Aux/line	10kΩ	10kΩ	10kΩ	10kΩ
Outputs	Speaker 8Ω and 100V	8Ω and 100V	8Ω and 100V	8Ω, 16Ω, 70V and 100V
Line	1V @ 600Ω	1V @ 600Ω	1V @ 600Ω	1V @ 600Ω
Power	Mains 230Vac, 50Hz	230Vac, 50Hz	230Vac, 50Hz	230Vac, 50Hz
Battery	12Vdc, 5A	12Vdc, 8A	24Vdc, 8A	24Vdc, 8A
Dimensions	425 x 230 x 88mm (2U)	425 x 230 x 88mm (2U)	425 x 230 x 88mm (2U)	425 x 230 x 88mm (2U)
Weight	5kg	7.5kg	10kg	13kg



### 3 CHANNEL 30W RMS MIXER AMPLIFIER

Mixer amplifier giving 30W rms output power featuring 2 mic inputs and 1 line input. Switchable VOX priority and balanced XLR input on MIC channel 1.

- Maximum output power 40W
- 3 input channels
- Channel 1 electronically balanced
- Switchable phantom power +12Vdc
- VOX priority channel 1
- Bass and treble controls
- 8Ω and 100V line outputs
- 2U 19" rack mountable
- Peak and signal LEDs
- Mains and battery operation

Stock Code	Packed
<b>952.966</b>	Box



### 4 CHANNEL 60W RMS MIXER AMPLIFIER

Mixer amplifier giving 60W rms of output power featuring 3 mic inputs and 1 line input. Switchable VOX priority and balanced XLR input on MIC channel 1. Channel 3 switchable MIC/AUX.

- Maximum output power 70W
- 4 input channels
- Channel 1 electronically balanced
- Channel 3 Mic/Aux switchable
- Switchable phantom power +12Vdc
- VOX priority channel 1
- 8Ω and 100V line outputs
- Bass and treble controls
- 2U 19" rack mountable
- Peak and signal LEDs
- Mains and battery operation

Stock Code	Packed
<b>952.969</b>	Box



### 4 CHANNEL 120W RMS MIXER AMPLIFIER

Mixer amplifier giving 120W rms of output power featuring 3 mic inputs and 1 line input. Switchable VOX priority and balanced XLR input on MIC channel 1. Channel 3 switchable MIC/AUX.

- Maximum output power 160W
- 4 input channels
- Channel 1 electronically balanced
- Channel 3 Mic/Aux switchable
- Switchable phantom power +21Vdc
- VOX priority channel 1
- 8Ω and 100V line outputs
- Bass and treble controls
- 2U 19" rack mountable
- Peak and signal LEDs
- Mains and battery operation

Stock Code	Packed
<b>952.972</b>	Box



### 6 CHANNEL 120W RMS MIXER AMPLIFIER

Mixer amplifier giving 120W rms of output power featuring 6 mic/line inputs. Switchable VOX priority on MIC channel 1 and 2. All input channels are switchable between line and balanced mic and feature switchable phantom power. Microphone connections are by combination XLR/6.3mm stereo sockets.

- 6 universal inputs XLR/Jack/RCA
- Electronically balanced inputs
- Switchable phantom power +48Vdc
- VOX priority channels 1 & 2
- 8Ω, 16Ω and 70, 100V line outputs
- Peak and signal LEDs
- Bass and treble controls
- Chime function on channel 1
- 2U 19" rack mountable

Stock Code	Packed
<b>952.996</b>	Box



### 120W RMS SLAVE AMPLIFIER

A 120W rms high power slave amplifier for use with the 900 series mixer amplifiers or with any other suitable source. Featuring phono sockets for input and output signals and front located master volume control. Signal and peak LED indicators for visual reading of the amplifiers performance.

- Maximum output power 160W
- Mains and battery operation
- 2U 19" rack mountable
- Peak and signal LEDs

Stock Code	Packed
<b>952.975</b>	Box



### 240W RMS SLAVE AMPLIFIER

A 240W rms high power slave amplifier for use with the 900 series mixer amplifiers or with any other suitable source. Featuring phono sockets for input and output signals and front located master volume control. Signal and peak LED indicators for visual reading of the amplifiers performance.

- Maximum output power 320W
- Mains and battery operation
- 2U 19" rack mountable
- Peak and signal LEDs

Stock Code	Packed
<b>952.993</b>	Box

Stock Code	952.975	952.993
Version	Slave	Slave
Output Max	160W	320W
RMS <2% THD	120W	240W
DC power	92W	170W
Frequency response	100Hz - 12kHz (±3dB)	100Hz - 12kHz (±3dB)
Signal to noise ratio	>75dB	>75dB
Inputs Line	300mV	300mV
Input sensitivity Line	300mV (-10.4dBV), unbalanced	300mV (-10.4dBV), unbalanced
Outputs Speaker	8Ω and 100V	8Ω and 100V
Line	1V @ 600Ω	1V @ 600Ω
Power Mains	230Vac, 50Hz	230Vac, 50Hz
Battery	24Vdc, 8A	24Vdc, 16A
Dimensions	425 x 230 x 88mm (2U)	425 x 230 x 88mm (2U)
Weight	9.5kg	12kg





## 6 DISC CD PLAYER

This Multi CD changer is a 19" rack unit ideal compliment to the Adastra range of P.A. amplifiers. The unit features a front loading magazine style CD player, when in play mode the unit will play each CD in turn, or tracks can be randomly played on a selected CD. The unit also features a headphone output, so if the unit is placed away from the sound output, the user can use headphones to select a CD or track.

- LCD readout for function status
- Line output level LED indication
- Headphone socket with volume control
- SCAN function allows 10secs of each track to be played
- Random play of selected CD
- Repeat of single track or CD
- RCA phono (L+R) and 6.3mm mono jack unbalanced output

Power:Mains .....230Vac, 50Hz (12W)  
Power:Battery .....12Vdc  
Frequency response.....20Hz - 20kHz  
Weight.....6.3kg  
Dimensions .....482 x 256 x 88mm

Dynamic range.....90dB  
Signal to noise ratio .....>80dB  
Harmonic distortion.....<0.2% @ 1kHz  
Output:Line.....0dBu

Stock Code	Packed
<b>952.985</b>	Box



## AM/FM TUNER

A compact tuner unit housed in a 1U 19" rack mount cabinet. A front mount headphone socket is incorporated to enable the tuner to be programmed if sited away from the speakers. The unit can be used surface mounted or rack mounted. The supplied rack ears can be used to secure the unit to a table or shelf for security.

- 1U 19" rack mountable
- 16 FM memories
- 8 AM memories
- Timer function
- PLL tuner module
- Mains and battery operation
- Easy to use controls
- Programmable functions
- Fast frequency search

Stock Code	Packed
<b>952.978</b>	Box
Dimensions .....	428 x 230 x 44mm
Weight.....	2kg

### FM Tuner

Tuning range.....87.5 - 108MHz  
Intermediate frequency .....10.7MHz  
Sensitivity (S/N 30dB).....≤ 10μV  
AM rejection .....≥ 40dB  
Intermediate rejection .....≥ 80dB

Image rejection .....≥ 25dB  
Stereo separation (1kHz) .....≥ 30dB  
Distortion (1mV - dev. 40kHz).....≤ 1%  
Signal/noise ratio (1mV).....≥ 50dB  
Automatic tuning sensitivity.....≤ 50μV

### AM Tuner

Tuning range.....522 - 1611Hz  
Intermediate frequency .....450kHz  
Sensitivity (S/N 20dB).....≤ 1mV/M  
Intermediate rejection .....≥ 45dB  
Image rejection .....≥ 30dB

Distortion (5μV).....≤ 2%  
Signal to noise ratio (5mV) .....≥ 35dB/M  
Automatic gain control.....≥ 45dB  
Automatic tuning sensitivity.....≤ 2mV/M  
Antenna supplied .....AM loop antenna



Power supply .....12Vdc  
Mic. input .....3.5mV (±1dB) @ 20 - 50kΩ  
Output Impedance.....4 - 16Ω  
Auxiliary input .....85mV (±1dB) @ 10kΩ

Output power .....12Wrms (4Ω)  
Dimensions.....40 x 150 x 140mm  
Weight.....0.79kg

Stock Code	Packed
<b>952.419</b>	Box

## VEHICLE AMPLIFIER

A compact 12W amplifier ideal for installation into vehicles for mobile broadcasts. The unit can be easily mounted into a car or boat, and is ideal for connection to Adastra horn or surface mount speakers. The unit has two inputs, Mic and Aux, each with their own individual volume controls, also featured is an electronic fog horn or siren function.

- Fog horn and siren
- 1 Mic and 1 Aux input
- 12Vdc operation
- Separate Mic and Aux controls
- Mounting hardware supplied
- Speaker connections via 5 pin plug (supplied)

## INDUCTION LOOP SYSTEMS

It is estimated that approximately two million people in the UK have hearing aids that are capable of receiving audio frequency induction loop transmissions.

### INDUCTION LOOP

Inductive loop amplifiers are a must for modern PA installations to give equal access to information and announcements to people with hearing disabilities. The Disability and Discrimination Act (1995) states that it is unlawful for service providers to discriminate against disabled people by providing them with a lower standard of service, or service on worse terms for reasons relating to their disability.

#### Induction loop logo:

Displayed where an induction loop is in operation to ensure that users set their receivers to the correct setting.



Adastra's induction loop mixer amplifiers are designed to complement the 900 series mixer amplifiers with their, much celebrated, multiple input options; allowing these induction loop amplifiers to be used, stand alone, with up to three sound sources – no need for a separate mixer or mixer amplifier.

The amplifiers are available in three versions to cover 600m<sup>2</sup> (LA-600, Ref: 952.865), 300m<sup>2</sup> (LA-300, Ref: 952.862) and 75m<sup>2</sup> (LA-75, Ref: 952.859) respectively, each featuring 3 inputs accepting input via XLR, 6.3mm Jack or RCA phono with inputs switchable between mic and line with optional phantom power switchable on the rear panel.

Tamper proof input level, bass & treble and loop current controls (recessed and adjusted by screwdriver) ensure that you can set up the system to suit the venue and there is even a built-in alarm circuit for evacuation alerts.

### HOW IT WORKS

Induction loop amplifiers allow audio signals to be transmitted using a magnetic field to a suitably equipped listener. A magnetic field is created when current flows through a wire – in induction loop systems the wire is normally installed as a loop around the perimeter of the area. A small coil within a hearing aid or other suitable receiver then receives this magnetic field and converts it to audio at a suitable level for the listener.

The loop itself is simply an insulated wire installed at a low level, around the skirting board for example.

Hearing aids designed to receive induction loop signals generally have a switch marked 'M' for microphone and 'T' for telephone (Sometimes a combined position is provided). In the 'T' position a pickup coil, originally designed for picking signals from a telephone earpiece, is used to receive audio from induction loop systems.



#### Typical hearing aid:

The user switches the hearing aid to the 'T' position to receive induction loop signals

The ideal signal strength for an induction loop system is such that a person switching between 'M' and 'T' would not notice a difference between the sound of someone speaking normally and a signal transmitted from the loop. To help in determining the perfect level it is often a good idea to engage the services of a hearing aid user – after all they are the ones that the system will most benefit. We also have available a simple inductive loop receiver (Ref: 952.853) that allows you to listen to the loop signal using an ordinary pair of headphones.



It is important for the cable used to form the loop is capable of carrying the current that the amplifier produces. The table below is a guide to the maximum loop length for each cable thickness (see page ??? for loop cables).

Cable Ø	Stock code	Total loop length
1.0mm	<b>804.651</b>	< 80m
1.5mm	<b>804.663</b>	< 110m
2.5mm	<b>804.675</b>	< 200m
4.0mm	<b>804.687</b>	> 200m

### TYPICAL APPLICATIONS



### INDUCTIVE LOOP RECEIVER

Compact, battery powered, belt-clip receiver for inductive loop systems.

- 3.5mm jack socket for headphone connection
- Volume control and lo-cut switch to adjust sound quality
- Ideal for testing/setting-up induction loop systems
- Can be used (with an induction loop system) to create an unobtrusive audio tour guide for art galleries, museums etc.

Battery ..... 1 x 9V (PP3)  
Dimensions ..... 60 x 84 x 23mm

Stock Code	Packed
<b>952.853</b>	Box



### LA-600 3 CHANNEL LOOP AMPLIFIER - 600m<sup>2</sup>

Inductive loop amplifiers are a must for modern PA installations to give equal access to information and announcements to people with hearing disability by transmitting audio signals to hearing aids fitted with a "T" switch. Designed to compliment the Adastra 900 series mixer amplifiers. Ideal for use in churches, theatres, conference rooms, museums and waiting rooms etc.

- Each channel accepts input via XLR, 6.3mm Jack or RCA phono
- Inputs switchable between mic and line with optional phantom power + 40Vdc
- Built-in siren for evacuation alert
- Tamper proof channel volume, bass & treble and loop current level controls
- Peak current LED indication
- 19" Rack mountable
- AGC (automatic gain control)

Power..... 230Vac, 50Hz, (150W)  
 Weight..... 7.2kg  
 Frequency response..... 50Hz-5kHz±3dB  
 THD..... <1%  
 Dimensions ..... 430 x 280 x 88mm (2U)  
 Input sensitivity:Line ..... -6dBu/6k ohm  
 Input sensitivity:Mic ..... -56dBu/2kΩ  
 Signal to noise ratio ..... 75dB(line), 60dB (mic)

Stock Code	Packed
<b>952.865</b>	Box



### LA-300 3 CHANNEL LOOP AMPLIFIER - 300m<sup>2</sup>

Inductive loop amplifiers are a must for modern PA installations to give equal access to announcements to people with hearing disability by transmitting audio signals to hearing aids fitted with a "T" switch. Designed to compliment the Adastra 900 Series of mixer amplifiers and are ideal for use in churches, theatres, conference rooms, museums, waiting rooms etc.

- Each channel accepts input via XLR, 6.3mm Jack or RCA phono
- Inputs switchable between mic and line with optional phantom power + 36Vdc
- Built-in siren for evacuation alert
- Tamper proof channel volume, bass & treble and loop current level controls
- Peak current LED indication
- 19" rack mountable
- AGC (automatic gain control)

Power supply ..... 230Vac, 50Hz, (100W)  
 Weight..... 4.7kg  
 Frequency response..... 50Hz-5kHz±3dB  
 THD..... <1%  
 Dimensions ..... 425 x 266 x 44mm (1U)  
 Input sensitivity:Line ..... -6dBu/6kΩ  
 Input sensitivity:Mic ..... -56dBu/2kΩ  
 Signal to noise ratio .. 75dB(line mode), 60dB(mic. mode)

Stock Code	Packed
<b>952.862</b>	Box







## LA-75 2 CHANNEL LOOP AMPLIFIER - 75m<sup>2</sup>

A compact mixer amplifier for driving a 75m<sup>2</sup> inductive loop, providing hearing aid users with high quality sound.

- 2 Microphone or line inputs
- Input and output connection via PCB mount screw terminals
- Tamper proof channel volume, bass, treble and loop current level controls
- AGC (automatic gain control)
- Built-in siren for evacuation alert
- Peak current and siren LED indication
- Vox priority
- Mounting brackets supplied
- Metal loss correction

Power supply .....230Vac, 50Hz  
Weight .....4.06kg  
Frequency response.....50Hz - 5kHz  
THD.....<1%  
Dimensions .....264 x 242 x 88mm  
Input sensitivity:Line .....-6dBu, 8kΩ  
Input sensitivity:Mic.....-56dBu, 2kΩ  
Signal to noise ratio .....75dB

**Stock Code** **Packed**  
**952.859** Box

## INDUCTION LOOP CABLE

Our complete range of cables can be found in the Cables & Leads section on pages 461 - 467

### INDUCTION LOOP CABLE

A range of flexible, single core, power cable for use with loop amplifiers.  
Flexible PVC sheath with plain copper stranded conductors.

	CSA	Strands	Current	Cable Dims.	Colour	Length	Packed
<b>804.651</b>	1.0mm <sup>2</sup>	1 x 32/0.2mm	10A	3.0mmØ	Black	100m	4 reels
<b>804.654</b>	1.0mm <sup>2</sup>	1 x 32/0.2mm	10A	3.0mmØ	White	100m	4 reels
<b>804.657</b>	1.0mm <sup>2</sup>	1 x 32/0.2mm	10A	3.0mmØ	Grey	100m	4 reels
<b>804.660</b>	1.0mm <sup>2</sup>	1 x 32/0.2mm	10A	3.0mmØ	Brown	100m	4 reels
<b>804.663</b>	1.5mm <sup>2</sup>	1 x 47/0.2mm	15A	3.3mmØ	Black	100m	4 reels
<b>804.666</b>	1.5mm <sup>2</sup>	1 x 47/0.2mm	15A	3.3mmØ	White	100m	4 reels
<b>804.669</b>	1.5mm <sup>2</sup>	1 x 47/0.2mm	15A	3.3mmØ	Grey	100m	4 reels
<b>804.672</b>	1.5mm <sup>2</sup>	1 x 47/0.2mm	15A	3.3mmØ	Brown	100m	4 reels
<b>804.675</b>	2.5mm <sup>2</sup>	1 x 79/0.2mm	25A	3.7mmØ	Black	100m	4 reels
<b>804.678</b>	2.5mm <sup>2</sup>	1 x 79/0.2mm	25A	3.7mmØ	White	100m	4 reels
<b>804.681</b>	2.5mm <sup>2</sup>	1 x 79/0.2mm	25A	3.7mmØ	Grey	100m	4 reels
<b>804.684</b>	2.5mm <sup>2</sup>	1 x 79/0.2mm	25A	3.7mmØ	Brown	100m	4 reels
<b>804.687</b>	4.0mm <sup>2</sup>	1 x 126/0.2mm	40A	4.3mmØ	Black	50m	4 reels
<b>804.690</b>	4.0mm <sup>2</sup>	1 x 126/0.2mm	40A	4.3mmØ	White	50m	4 reels
<b>804.693</b>	4.0mm <sup>2</sup>	1 x 126/0.2mm	40A	4.3mmØ	Grey	50m	4 reels
<b>804.696</b>	4.0mm <sup>2</sup>	1 x 126/0.2mm	40A	4.3mmØ	Brown	50m	4 reels

